producing a second intermediate signal from the square wave signal such that the second intermediate signal contains sinusoidal signal components from among frequencies corresponding to the respective fundamental frequencies of the square wave signal components;

producing an RMS signal corresponding to an instantaneous amplitude of the first intermediate signal; and

amplifying the second intermediate signal by an amount proportional to the RMS signal to produce the sub-harmonic signal.

67. The method of claim 66, wherein the second range is contained within the first range.

68. The method of claim 67, wherein the second range is about 40 Hz to about 110 Hz.

69. The method of claim 67, wherein the second range is about 56 Hz to about 96 Hz.

70. The method of claim 66, wherein the step of producing the square wave signal includes producing a zero crossing signal that transitions each time the first intermediate signal substantially matches a reference potential.

71. The method of claim 70, wherein the step of producing the zero crossing signal includes:

comparing respective amplitudes of the reference potential and the first intermediate signal; and

transitioning the zero crossing signal each time the amplitude of the reference potential substantially equals the first intermediate signal.

72. The method of claim 70, wherein the step of producing the square wave signal further includes transitioning the square wave signal one time each time the zero crossing signal transitions two times.

73. The method of claim 72, wherein the third range of frequencies is about 20 Hz to about 55 Hz.

74. The method of claim 72, wherein the third range of frequencies is about 28 Hz to about 48 Hz.

75. The method of claim 66, wherein the step of producing the second intermediate signal includes attenuating frequencies substantially outside the third range from the square wave signal such that the second intermediate signal contains the sinusoidal signal components at frequencies corresponding to the respective fundamental frequencies of the square wave signal components.

76. The method of claim 75, wherein the third range is about 25 Hz to about 50 Hz.

77. The method of claim 75, further comprising adjusting the attenuated frequencies that are substantially outside the third range.

78. The method of claim 66, further comprising:

producing a third intermediate signal from the input signal such that the third intermediate signal contains frequencies from among a fourth range, the fourth range of frequencies including at least some frequencies above the third range of frequencies;

producing a fourth intermediate signal by increasing an amplitude of the third intermediate signal; and

summing the sub-harmonic signal and the fourth intermediate signal to produce at least a portion of an output signal.

79. The method of claim 78, wherein the fourth range is about 35 Hz to about 105 Hz.

80. The method of claim 79, wherein the fourth range is about 40 Hz to about 98 Hz.

81. The method of claim 78, further comprising varying the magnitude of the third intermediate signal.

82. The method of claim 78, wherein the step of producing at least a portion of the output signal further includes:

attenuating frequencies of the sub-harmonic signal substantially below the third range to produce a filtered sub-harmonic signal; and

summing the filtered sub-harmonic signal and the fourth intermediate signal to produce at least a portion of the output signal.

83. The method of claim 66, further comprising:

producing a low pass signal from the input signal such that it contains frequencies from among the third range of frequencies;

producing a fourth intermediate signal by increasing an amplitude of the third intermediate signal; and

summing the sub-harmonic signal, the fourth intermediate signal, and the low pass signal to produce at least a portion of the output signal.

84. The method of claim 66, further comprising aggregating a left channel signal and a right channel signal of a stereo signal to produce the input signal.

85. The method of claim 84, further comprising:

producing a third intermediate signal from the input signal such that it contains frequencies from among a fourth range, the fourth range of frequencies including at least some frequencies above the third range of frequencies;

increasing an amplitude of the third intermediate signal to produce a fourth intermediate signal;

summing the left channel signal and the fourth intermediate signal to produce at least a portion of a left channel output signal; and

summing the right channel signal and the fourth intermediate signal to produce at least a portion of a right channel output signal.

86. The method of claim 84, further comprising:

canceling energy at at least some frequencies from among a fourth range of frequencies from the left channel signal to produce at least a portion of a left channel output signal; and

canceling energy at at least some frequencies from among a fifth range of frequencies from the right channel signal to produce at least a portion of a right channel output signal.

87. The method of claim 86, further comprising:

producing an intermediate left channel signal from the left channel signal containing a band of frequencies from among the fifth range of frequencies;

producing an intermediate right channel signal from the right channel signal containing a band of frequencies from among the fourth range of frequencies;

subtracting the intermediate right channel signal from the left channel signal to produce at least a portion of the left channel output signal; and

subtracting the intermediate left channel signal from the right channel signal to produce at least a portion of the right channel output signal.

88. The method of claim 87, wherein:

the intermediate left channel signal has frequency, amplitude and phase characteristics such that energy of the right channel signal at frequencies from among the fifth range of frequencies are substantially attenuated when the intermediate left channel signal is subtracted from the right channel signal; and

the intermediate right channel signal has frequency, amplitude and phase characteristics such that energy of the left channel signal at frequencies from among the fourth range of frequencies are substantially attenuated when the intermediate right channel signal is subtracted from the left channel signal.

89. The method of claim 87, wherein one of the fourth and fifth ranges of frequencies is about 175 Hz to about 225 Hz and the other of the fourth and fifth ranges of frequencies is about 150 Hz to about 200 Hz.

90. The method of claim 87, wherein a center frequency of one of the fourth and fifth ranges of frequencies is about 200 Hz and a center frequency of the other of the fourth and fifth ranges of frequencies is about 175 Hz.

91. The method of claim 87, further comprising:

producing a left channel high pass signal from the left channel signal such that it contains frequencies from among those at or above a first corner frequency;

producing a right channel high pass signal from the right channel signal such that it contains frequencies from among those at or above a second corner frequency;

aggregating at least the left channel signal, the intermediate right channel signal, and the left channel high pass signal to produce at least a portion of the left channel output signal; and

aggregating at least the right channel signal, the intermediate left channel signal, and the right channel high pass signal to produce at least a portion of the right channel output signal.

92. The method of claim 91, wherein:

the step of producing the left channel high-pass signal includes amplifying energy of the left channel signal at or above the first corner frequency to produce the left channel high pass signal; and

the step of producing the right channel high-pass signal includes amplifying energy of the right channel signal at or above the second corner frequency to produce the right channel high pass signal.

93. The method of claim 91, wherein:

the step of producing at least a portion of the left channel output signal includes (i) aggregating at least the left channel high pass signal and the intermediate right channel signal to produce a left expansion signal, and (ii) summing at least the left channel signal and the left expansion signal to produce at least a portion of the left channel output signal; and

the step of producing at least a portion of the right channel output signal includes (i) aggregating at least the right channel high pass signal and the intermediate left channel signal to produce a right expansion signal, and (ii) summing at least the right channel signal and the right expansion signal to produce at least a portion of the right channel output signal.

94. The method of claim 93, further comprising varying a magnitude of the left expansion signal and a magnitude of the right expansion signal.

95. A method, comprising:

filtering an input signal containing frequencies from among a first range to produce a first intermediate signal containing frequencies from among a second range;

producing a sub-harmonic signal from the first intermediate signal such that it contains frequencies from among a third range, the third range of frequencies being about one octave below the second range of frequencies;

producing a second intermediate signal from the input signal such that it contains frequencies from among a fourth range, the fourth range of frequencies including at least some frequencies above the third range of frequencies;

producing a third intermediate signal by increasing an amplitude of the second intermediate signal; and

summing the sub-harmonic signal and the third intermediate signal to produce at least a portion of an output signal.

96. The method of claim 95, wherein the fourth range is about 35 Hz to about 105 Hz.

97. The method of claim 95, wherein the fourth range is about 40 Hz to about 98 Hz.

98. The method of claim 95, further comprising varying the magnitude of the second intermediate signal.

99. The method of claim 95, wherein the step of producing at least a portion of the output signal further includes:

attenuating frequencies of the sub-harmonic signal substantially below the third range to produce a filtered sub-harmonic signal; and

summing the filtered sub-harmonic signal and the third intermediate signal to produce at least a portion of the output signal.

100. The method of claim 95, wherein the step of producing at least a portion of the output signal further includes:

producing a low pass signal from the input signal that contains frequencies from among those within the first and second ranges; and

summing the sub-harmonic signal, the third intermediate signal, and the low pass signal to produce at least a portion of the output signal.

101. The method of claim 95, further comprising:

aggregating a left channel signal and a right channel signal of a stereo signal to produce the input signal;

summing the left channel signal and the third intermediate signal to produce at least a portion of a left channel output signal; and

summing the right channel signal and the third intermediate signal to produce at least a portion of a right channel output signal.

102. The method of claim 101, further comprising:

canceling energy at at least some frequencies from among a fifth range of frequencies from the left channel signal to produce at least a portion of a left channel output signal; and

canceling energy at at least some frequencies from among a sixth range of frequencies from the right channel signal to produce at least a portion of a right channel output signal.

103. The method of claim 102, further comprising:

producing an intermediate left channel signal from the left channel signal containing a band of frequencies from among the sixth range of frequencies;

producing an intermediate right channel signal from the right channel signal containing a band of frequencies from among the fifth range of frequencies;

subtracting the intermediate right channel signal from the left channel signal to produce at least a portion of the left channel output signal; and

subtracting the intermediate left channel signal from the right channel signal to produce at least a portion of the right channel output signal.

104. The method of claim 103, wherein:

the intermediate left channel signal has frequency, amplitude and phase characteristics such that energy of the right channel signal at frequencies from among the sixth range of frequencies are substantially attenuated when the intermediate left channel signal is subtracted from the right channel signal; and

the intermediate right channel signal has frequency, amplitude and phase characteristics such that energy of the left channel signal at frequencies from among the fifth range of frequencies are substantially attenuated when the intermediate right channel signal is subtracted from the left channel signal.

105. The method of claim 103, wherein one of the fifth and sixth ranges of frequencies is about 175 Hz to about 225 Hz and the other of the fifth and sixth ranges of frequencies is about 150 Hz to about 200 Hz.

106. The method of claim 103, wherein a center frequency of one of the fifth and sixth ranges of frequencies is about 200 Hz and a center frequency of the other of the fifth and sixth ranges of frequencies is about 175 Hz.

107. The method of claim 103, further comprising:

producing a left channel high pass signal from the left channel signal such that it contains frequencies from among those at or above a first corner frequency;

producing a right channel high pass signal from the right channel signal such that it contains frequencies from among those at or above a second corner frequency;

aggregating at least the left channel signal, the intermediate right channel signal, and the left channel high pass signal to produce at least a portion of the left channel output signal; and

aggregating at least the right channel signal, the intermediate left channel signal, and the right channel high pass signal to produce at least a portion of the right channel output signal.

108. The method of claim 107, wherein:

the step of producing the left channel high-pass signal includes amplifying energy of the left channel signal at or above the first corner frequency to produce the left channel high pass signal; and

the step of producing the right channel high-pass signal includes amplifying energy of the right channel signal at or above the second corner frequency to produce the right channel high pass signal.

109. The method of claim 107, wherein:

the step of producing at least a portion of the left channel output signal includes (i) aggregating at least the left channel high pass signal and the intermediate right channel signal to produce a left expansion signal, and (ii) summing at least the left channel signal and the left expansion signal to produce at least a portion of the left channel output signal; and

the step of producing at least a portion of the right channel output signal includes (i) aggregating at least the right channel high pass signal and the intermediate left channel signal to produce a right expansion signal, and (ii) summing at least the right channel signal and the right expansion signal to produce at least a portion of the right channel output signal.

110. The method of claim 109, further comprising varying a magnitude of the left expansion signal and a magnitude of the right expansion signal.

111. A method for increasing an apparent stereo width produced by a left channel signal and a right channel signal of a stereo signal, comprising:

canceling energy at at least some frequencies from among a first range of frequencies from the left channel signal to produce at least a portion of a left channel output signal, the at least some frequencies from among the first range of frequencies being derived from the right channel signal; and

canceling energy at at least some frequencies from among a second range of frequencies from the right channel signal to produce at least a portion of a right channel output signal, the at least some frequencies from among the second range of frequencies being derived from the left channel signal.

112. The method of claim 111, further comprising:

producing an intermediate left channel signal from the left channel signal containing a band of frequencies from among the second range of frequencies;

producing an intermediate right channel signal from the right channel signal containing a band of frequencies from among the first of frequencies;

subtracting the intermediate right channel signal from the left channel signal to produce at least a portion of the left channel output signal; and

subtracting the intermediate left channel signal from the right channel signal to produce at least a portion of the right channel output signal.

113. The method of claim 112, wherein:

the intermediate left channel signal has frequency, amplitude and phase characteristics such that energy of the right channel signal at frequencies from among the second range of frequencies are substantially attenuated when the intermediate left channel signal is subtracted from the right channel signal; and

the intermediate right channel signal has frequency, amplitude and phase characteristics such that energy of the left channel signal at frequencies from among the first of frequencies are substantially attenuated when the intermediate right channel signal is subtracted from the left channel signal.

114. The method of claim 112, wherein one of the first and second ranges of frequencies is about 175 Hz to about 225 Hz and the other of the first and second ranges of frequencies is about 150 Hz to about 200 Hz.

115. The method of claim 112, wherein a center frequency of one of the first and second ranges of frequencies is about 200 Hz and a center frequency of the other of the first and second ranges of frequencies is about 175 Hz.

116. The method of claim 112, further comprising:

producing a left channel high pass signal from the left channel signal such that it contains frequencies from among those at or above a first corner frequency;

producing a right channel high pass signal from the right channel signal such that it contains frequencies from among those at or above a second corner frequency;

aggregating at least the left channel signal, the intermediate right channel signal, and the left channel high pass signal to produce at least a portion of the left channel output signal; and

aggregating at least the right channel signal, the intermediate left channel signal, and the right channel high pass signal to produce at least a portion of the right channel output signal.

117. The method of claim 116, wherein:

the step of producing the left channel high-pass signal includes amplifying energy of the left channel signal at or above the first corner frequency to produce the left channel high pass signal; and

the step of producing the right channel high-pass signal includes amplifying energy of the right channel signal at or

above the second corner frequency to produce the right channel high pass signal.

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118. The method of claim 116, wherein:

the step of producing at least a portion of the left channel output signal includes (i) aggregating at least the left channel high pass signal and the intermediate right channel signal to produce a left expansion signal, and (ii) summing at least the left channel signal and the left expansion signal to produce at least a portion of the left channel output signal; and

the step of producing at least a portion of the right channel output signal includes (i) aggregating at least the right channel high pass signal and the intermediate left channel signal to produce a right expansion signal, and (ii) summing at least the right channel signal and the right expansion signal to produce at least a portion of the right channel output signal.

119. The method of claim 118, further comprising varying a magnitude of the left expansion signal and a magnitude of the right expansion signal.

120. The method of claim 116, wherein at least one of the first and second corner frequencies are about 5.3 KHz.